IN THE UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF WISCONSIN

- -

PROMEGA CORPORATION,

Plaintiff,

and

MAX-PLANCK-GESELLSCHAFT zur
FORDERUNG der WISSENSCHAFTEN E.V.,

Involuntary Plaintiff,

v.

LIFE TECHNOLOGIES CORPORATION,
INVITROGEN IP HOLDINGS, INC. and
APPLIED BIOSYSTEMS, INC.,

Defendants.

OPINION AND ORDER

10-cv-281-bbc

- -

This case for patent infringement is before the court for claim construction. Plaintiff Promega Corporation owns four patents related to genetic testing, U.S. Patent Nos. 5,843,660, 6,221,598, 6,479,235, and 7,008,771, all with the same title: "Multiplex Amplification of Short Tandem Repeat Loci." The "short tandem repeat loci" are simply regions on a DNA strand that contain repeating nucleotide sequences. Because the number of repeats of particular sequences can vary greatly from person to person, these differences can

be used to compare different DNA samples for possible matches for use in contexts such as forensic and paternity tests. To facilitate the process, the loci are copied, or "amplified." "Multiplex" amplification simply means that multiple loci are copied simultaneously to make the process more efficient.

Defendants seek construction of several terms that are found throughout the four patents: "a set of . . . loci," "gel," "primers for co-amplifying . . . loci," "primers for each locus," "primers flanking the loci," "multiplex amplification . . . using . . . primers" and "co-amplifying . . . loci." (Plaintiffs are asserting a fifth patent in this case, U.S. Patent No. Re 37,984, but neither side is asking for construction of terms in that patent.) Plaintiffs' position is that no construction is needed.

I decline to read in any of the limitations proposed by defendants at this stage. With respect to many of the terms, defendants are confusing arguments about validity and claim construction. With respect to the term "gel," defendants have failed to establish that a person of ordinary skill in the art would conclude that a "gel" must be "cross-linked" in the context of the patents at issue. Finally, with respect to the term "a set of . . . loci," I cannot resolve the parties' dispute in this opinion because the parties have failed to address the textual differences among the many claims throughout the patents in which the term appears.

OPINION

A. A Set of Loci

Defendants' proposed construction is a "collection of only the loci listed in the claim." In other words, defendants say that the set is closed; plaintiffs say that it is open and may include loci other than those identified explicitly in the claims. Thus, defendants are not so much seeking to define the term, but rather to limit the scope of the claims. Unfortunately, I cannot resolve the dispute at this time because the parties' briefs do not address all the relevant issues.

This term appears in each of the four asserted patents and all of the approximately 60 claims asserted in this case. Although the context of the term changes from patent to patent (and even from claim to claim), the parties gloss over the textual differences and assume that their arguments apply equally in each instance the phrase appears. In fact, in their opening brief, defendants say almost nothing about claim language and proceed directly to arguments about the prosecution history and specifications.

This approach would be fine if it were clear that the differences between the claims had no bearing on claim construction or if the parties agreed that the court did not need to consider the surrounding claim language in construing the term. The problem is that both sides *do* rely on the claim language (defendants do so for the first time in their response brief), but they cherry pick the claims that they believe support their argument and ignore

the claims with different wording. For example, plaintiffs rely on the use of the word "comprising" in claims 12 and 28 of the '598 in support of their argument that the list of loci in those claims is non-exclusive, but they ignore the use of the phrase "consisting of" in other asserted claims. Vehicular Technologies Corp. v. Titan Wheel International, Inc., 212 F.3d 1377, 1383 (Fed. Cir. 2000) ("In simple terms, a drafter uses the phrase 'consisting of' to mean 'I claim what follows and nothing else.' A drafter uses the term "comprising' to mean 'I claim at least what follows and potentially more.'"). For their part, defendants rely in their response brief entirely on the language of claim 16 in the '660 patent, even though the structure of that claim is very different from many other asserted claims. They do not address the text of any of the claims that plaintiffs cite in their opening brief.

Worse, defendants do not directly address this court's previous determination in Promega Corporation v. Applera Corporation, 01-C-244-C (W.D. Wis. June 7, 2002), dkt. #54, that the loci in claims 1-5 of the '660 patent are not limited to the ones listed in the claims. Defendants are correct that issue preclusion does not apply because the 2002 lawsuit settled before final judgment. Talmage v. Harris, 486 F.3d 968, 974 (7th Cir. 2007) ("Normally, when a case is resolved by settlement or stipulation, courts will find that the 'valid final judgment' requirement of issue preclusion has not been satisfied."); see also Wisconsin Electric Power Co. v. Northern Assurance Co. of America, 07-C-299-S, 2007 WL 5614077, *2 (W.D. Wis. Dec.17, 2007) ("Ordinarily, judgments based on settlement are

intended to preclude litigation on the particular claims at issue, but are not intended to preclude future litigation on the issues presented."). However, even if the 2002 opinion is not legally binding, it would behoove defendants to explain why they believe that opinion is flawed if they wish to persuade the same court to reach a different conclusion this time around.

Plaintiffs make the opposite mistake. They treat the earlier decision as dispositive of all claims in this case, even though only a subset of the claims was at issue in 2002 and I relied on specific language in the claims in reaching my conclusion,

Accordingly, if either side wishes to have this phrase construed, they will have to wait until summary judgment. In the meantime, the parties should consider how they wish to frame their arguments. If they believe that "a set of . . . loci" has an identical meaning everywhere it appears in every asserted claim in every asserted patent, then they should be prepared to explain why textual differences in the claims may disregarded. They should not use the language of a particular claim to support a construction they wish to be applied across the board.

B. Claims Involving Primers

The disputed issue for these terms is similar to the previous one. With respect to the various phrases regarding primers, defendants wish to limit those to "the specific primer

sequences listed in the patent." (The phrase "co-amplifying . . . loci" is included in this group because defendants' proposed construction is "when primers are used, amplifying loci together using the specific primer sequences listed in the patent."). As a general matter, the parties agree that a primer is a single-stranded DNA fragment used to initiate DNA synthesis.

Again, the parties do not distinguish among the various claims and patents in which this term is used. However, that does not prevent resolution of this dispute because defendants do not rely on particular claim language to support their argument. This is not surprising because defendants are attempting to limit the primer sequences to those listed in the *specification*; the asserted claims themselves do not identify any particular primer sequences.

Defendants have an uphill battle. They acknowledge implicitly (by ignoring the issue) that the plain language of the claims does not support their argument. That is, defendants do not point to any claims that explicitly limit the primers to those listed in the patent. In fact, defendants acknowledge that some of the unasserted claims include specific primer sequences, which supports a view that the inventor did not intend to limit other claims that do not include an express limitation. Cf. Phillips v. AWH Corp., 415 F.3d 1303, 1324 (Fed. Cir. 2005) ("The inclusion of such a specific limitation on the term 'baffles' in claim 2 makes it likely that the patentee did not contemplate that the term 'baffles' already contained that

limitation.").

By failing to develop any argument regarding the language of the claims, defendants have all but guaranteed their failure on this issue. As this court and many others have observed, there are few bright line rules in the law of patent claim construction. However, the general rule is that courts should not read in limitations to the claims that are not present in the claims themselves. DSW, Inc. v. Shoe Pavilion, Inc., 537 F.3d 1342, 1347 (Fed. Cir. 2008). "This is so because the claims define the scope of the right to exclude; the claim construction inquiry, therefore, begins and ends in all cases with the actual words of the claim." Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1248 (Fed. Cir. 1998). See also Markman v. Westview Instruments, Inc., 52 F.3d 967, 980 (Fed. Cir. 1995) ("The written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of claims."). For this reason, it is rare that the scope of the claims is limited to the examples of the invention listed in the patent. In re Omeprazole Patent Litigation, 483 F.3d 1364, 1372 (Fed. Cir. 2007). Although exceptions to this general rule exist when the specification defines a claim term narrowly or the prosecution history shows that the patentee disavowed a broader reading, these exceptions apply only when the claim language is ambiguous or the intent of the inventor is clear. Computer Docking Station Corp. v. Dell, Inc., 519 F.3d 1366, 1375 (Fed. Cir. 2008) ("Prosecution disclaimer does not apply to an ambiguous disavowal."); Home Diagnostics, Inc. v. LifeScan,

Inc., 381 F.3d 1352, 1357 (Fed. Cir. 2004) (refusing to limit scope of claim to embodiments because specification did "not clearly and unambiguously disavow other ways" of practicing invention). That is not the situation in this case. Although the specification in the '598 patent includes a definition of "primers," it is not limited to specific sequences. '598 Pat., col. 5. lns. 57-58 ("Primers: two single-stranded oligonucleotides or DNA fragments which hybridize with opposing strands of a locus such that the 3' termini of the primers are in closest proximity.").

Defendants' primary argument is that the claims must be limited to the examples because the specification and prosecution history show that plaintiffs were not "in possession" of an invention involving "all possible primer sequences" when they obtained the patents and that "undue experimentation" would be required to determine viable primer sequences other than those listed in the specification. Dfts.' Br., dkt. #158, at 22-27. The problem with this view is that defendants are relying on principles that have little to do with claim construction, but are more appropriately raised at summary judgment in the context of an argument that the patents are invalid. Ariad Pharmaceuticals, Inc. v. Eli Lilly and Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010) ("[T]he test for sufficiency [of the written description] is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date."); Genentech Inc. v. Novo Nordisk A/S, 108 F.3d 1361, 1365 (Fed. Cir.

1997) ("To be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation.'"). All of the cases defendants cite in their briefs involve issues of invalidity, e.g., Capon v, Eshhar, 418 F.3d 1349 (Fed. Cir. 2005); Reiffin v. Microsoft Corp., 214 F.3d 1342 (Fed. Cir. 2000), or boilerplate principles of claim construction that provide no support to defendants' position. E.g., Renishaw, 158 F.3d at1248. Defendants cite no cases in which any court narrowed the scope of the claims under remotely similar circumstances.

It is true that courts are required to construe claims with an eye toward preserving their validity, but this is only when "'the court concludes, after applying all the available tools of claim construction, that the claim is still ambiguous.'" Phillips, 415 F.3d at 1327 (quoting Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed. Cir. 2004)). This canon cannot be used to *create* an ambiguity that would not otherwise exist. Accordingly, I decline to construe any of the asserted claims involving primers as being limited to particular primer sequences.

C. Gel

Defendants wish to define this term to mean "a three-dimensional cross-linked network." The focus of the parties' dispute is whether the gel must be "cross-linked." (Plaintiffs propose their own construction, but neither side discusses the specifics of that

construction, so I will limit my consideration to the issue discussed by the parties.) Neither side explains what it means to be "cross-linked," but the McGraw-Hill Dictionary of Scientific and Technical Terms 513 (6th ed. 2003), defines the noun "crosslink" in the context of organic chemistry to mean "[t]he covalent bonds between adjacent polymer chains that lock the chains in place" and "crosslinking" as "the setting up of chemical links between the molecular chains of polymers."

Neither side argues expressly that any of the patents provide a specialized definition for the term "gel." However, defendants cite a statement from one of the inventors in the prosecution history of the '660 patent that "polyacrylamide denaturing gel electrophoresis" is "the principal tool used to separate amplified STR loci." Defendants say that the statement shows that "a skilled artisan understood the term 'gel' as a three-dimensional cross-linked network." Dfts.' Br., dkt. #158, at 21. Defendants' view is puzzling because the cited statement neither discusses the concept of "cross-linking" nor purports to provide a definition of the term "gel." It provides no support for defendants' proposed construction.

Plaintiffs argue that defendants' proposed construction should be rejected because the patent does not expressly limit the term "gel" to specific types. Plaintiffs are correct about the patent, but this is not dispositive because the patents do not include *any* definition of the term. Thus, the question is whether a person of ordinary skill in the art would understand the word "gel" to include a crosslinking requirement as a general matter. Verizon

Services Corp. v. Vonage Holdings Corp., 503 F.3d 1295, 1304 (Fed. Cir. 2007).

The parties cite dueling dictionaries in support of their positions. Defendants cite an article that refers to the Dictionary of Polymers 208 (2005), which defines "a polymer gel" to mean "a three-dimensional crosslinked network [that] swells in a solvent to a certain finite extent, but does not dissolve even in a good solvent." In addition, they cite Molecular Biology and Biotechnology: A Comprehensive Desk Reference 468 (1995), which defines a "gel" as "an extended three-dimensional, loosely cross-linked polymer permeated by water through interconnecting pores." Plaintiffs cite a definition of "gel" from dictionary.com as "a semirigid polymer, as agarose, starch, cellulose acetate, or polyacrylamide, cast into slabs or cylinders for the electrophoretic separation of proteins and nucleic acids."

Both sides criticize the other's definitions, apparently without realizing that some of their criticisms apply equally to their own definitions. For example, defendants say that plaintiffs' definition is from 2011, which is too recent to be probative because the priority dates of the patents are in the 1990s. However, the primary definition on which defendants rely comes from an article from 2009 citing a dictionary from 2005. In any event, neither side provides any reason to believe that the meaning of "gel" has changed in the relevant art in the last 20 years.

For their part, plaintiffs say that "[r]eliance on dictionary definitions divorced from the intrinsic evidences creates the risk of improper claim construction" and that defendants

"offe[r] a self-serving definition of gel from one of many dictionaries without any explanation or reasonable basis of why the definition chosen has any relevance or relationship to the term 'gel' as actually used in the patent claims." Plts.' Br., dkt. #186, at 14-15. This observation applies no less to plaintiffs' own proposed dictionary definition.

Plaintiffs are correct that the court of appeals has cautioned against using "abstract" dictionary definitions that do not consider the context in which the terms appears in the patent. Innogenetics, N.V. v. Abbott Laboratories, 512 F.3d 1363, 1371 (Fed. Cir. 2008). At the same time, the court has recognized that "dictionaries, and especially technical dictionaries [are] among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention." Phillips, 415 F.3d at 1318. See also Verizon Services, 503 F.3d at 1304 (relying on dictionary to determine ordinary meaning). Because dictionaries are the only authority the parties cite, the court cannot ignore them.

Under Phillips, defendants' specialized dictionaries likely are more probative than a general purpose online dictionary of the way a person of ordinary skill in the art would define the word "gel" in the context of the patents at issue. However, a closer look at defendants' authorities reveals that the meaning of the word "gel" in the relevant art is not necessarily as clear cut as defendants would suggest. For example, the author of the article cited by defendants says that "[i]t is indeed difficult to answer the question, 'What is a gel?"

The article includes a number of definitions other than the one from the Dictionary of Polymers, some of which do not include any reference to being crosslinked. Katsuyoshi Nishinari, "Some Thoughts on the Definition of a Gel," dkt. #174. Ultimately, the author provides two of his own proposed definitions, a "structural definition" that includes a reference to crosslinking and a "rheological definition" that does not. Id. Casting further doubt is the declaration of plaintiffs' expert, in which he avers that some types of gels, such as agarose gels, are not crosslinked. Dimond Decl. ¶ 19, dkt. #155.

In light of the split in authority on the meaning of the term, I am reluctant to impose a more restrictive construction in the absence of evidence that the inventors intended to adopt that particular definition. Cf. Kasten v. Saint-Gobain Performance Plastics Corp., 131 S. Ct. 1325, 1331 (2011) (declining to adopt narrow definition of statutory term when dictionaries were inconsistent). Accordingly, for the time being, I decline to construe the term "gel" as including a "crosslinking" requirement. If defendants have additional evidence in support of a narrower construction, they are free to present it at summary judgment.

ORDER

IT IS ORDERED that U.S. Patent Nos. 5,843,660, 6,221,598, 6,479,235, and 7,008,771 are CONSTRUED as follows:

1. The terms "primers for co-amplifying . . . loci," "primers for each locus," "primers

flanking the loci," "multiplex amplification . . . using . . . primers" and "co-amplifying . . . loci" are not limited to the primer sequences listed in the patent.

2. The term "gel" is not limited to substances that are cross-linked.

3. The term "a set . . . of loci" cannot be construed at this time.

4. If further construction is necessary to resolve an issue of validity or infringement, the court will provide that construction at summary judgment or trial.

Entered this 24th day of May, 2011.

BY THE COURT:

/s/
BARBARA B. CRABB
District Judge